Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

DIOPHANTINE ANALYSIS.

124. Proposed by F. P. MATZ, Sc. D., Ph. D., Reading, Pa.

Find (1) three square numbers whose sum is a cube; (2) three cube numbers whose sum is a square.

125. Proposed by F. P. MATZ, Sc. D., Ph. D., Reading, Pa.

What *values* of x will make $E=\frac{(x+7)(x+5)}{(x-7)(x-5)}$ represent square numbers?

AVERAGE AND PROBABILITY.

160. Proposed by J. F. LAWRENCE, A. B., Professor of Mathematics, Oklahoma Agricultural College, Stillwater, Oklahoma.

Two points are taken at random in a triangle, the line joining them dividing the triangle into two portions. Find the mean value of that portion containing the center of gravity.

161. Proposed by F. P. MATZ, Sc. D., Ph. D., Reading, Pa.

A triangle is inscribed at random in a circle; (a) what is the chance the triangle is *oblique;* and (b) what is the chance the triangle is *less in area* than $\frac{1}{4}\pi r^2$?

MISCELLANEOUS.

146. Proposed by F. P. MATZ, Sc. D., Ph. D., Reading, Pa.

The year 1905 *began*, and will *end*, on a Sunday. Prove that this can not occur again until the year 2015.

147. Proposed by F. P. MATZ, Sc. D., Ph. D., Reading, Pa.

If an *unknown* curve be described under a constant acceleration not tending to the center and the hodograph is a cardioid, what is the unknown curve?

NOTE.—Problems and solutions in the departments of Geometry, Calculus, Mechanics, and Average and Probability should be sent to B. F. Finkel; and those in the departments of Algebra, Diophantine Analysis, Miscellaneous, and Group Theory should be sent to Dr. Saul Epsteen. Our contributors should carefully observe this notice if proper credit for contributions is to be given.

BOOKS.

Academic Algebra. By Wooster Woodruff Beman, Professor of Mathematics in the University of Michigan, and David Eugene Smith, Professor of Mathematics in Teachers College, Columbia University, New York. 8vo. Half Leather, 383 pages. Price, $1.25. Boston and Chicago: Ginn & Co.

A splendid work for Academies and High Schools. B. F. F